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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/694,896

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Jang-Keun Oh

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EXAMINER

SNIDER, THERESA T

ART UNIT

PAPER NUMBER

1744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/694,896

Applicant(s)

OH, JANG-KEUN

Examiner

Theresa T. Snider

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/28, 9/7/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 4(figure 1).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "9" has been used to designate both flexible hose(page 2, line 4) and handle(page 2, line 17). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

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examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities:

Exemplary of such:

Page 8, line 15, '70' should be inserted after 'grill'.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 8, it is unclear as to where the preamble ends and the body of the claim begins; it is unclear as to what is being claimed.

***Claim Rejections - 35 USC § 102***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 8 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP9-164100.

JP9-164100 discloses a handle tube interposed between a brush and a cleaner body (fig. 1, #13,7,12, fig. 6, #13).

JP9-164100 discloses the handle tube forms an airflow passage and is double bent between a distal end connected with the brush and a proximal end connected with the cleaner body (fig. 7, #22,10).

8. Claim 8 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO02-051296.

WO02-051296 discloses a handle tube interposed between a brush and a cleaner body (fig. 1, #5,4,3,1).

WO02-051296 discloses the handle tube forms an airflow passage and is double bent between a distal end connected with the brush and a proximal end connected with the cleaner body (fig. 1, #3).

### ***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 3-4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Song et al.(6,195,835) in view of Wolf(3,557,399) and JP9-164100.

Song et al. discloses a similar vacuum cleaner however fails to disclose a brush or double bent handle.

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Song et al. discloses a nozzle capable of inhaling air containing external dust (fig. 2, #4). Wolf discloses a brush capable of inhaling air containing external dust (fig. 2, #40). It would have been obvious to one of ordinary skill in the art to provide the brush of Wolf in Song et al. to allow for agitation of a surface to be cleaned to allow for the most effective removal of dirt.

Song et al. discloses a cleaner body for supplying suction force to the brush (fig. 2, #1).

Song et al. discloses a handle tube interposed between the brush and the cleaner body, wherein a part of the handle tube is formed as a handle (fig. 2, #3,8). JP9-164100 discloses a vacuum cleaner with a handle tube interposed between the brush and the cleaner body, wherein a part of the handle tube is formed as a handle that is double bent (fig. 7, #22,10). It would have been obvious to one of ordinary skill in the art to replace the handle of Song et al. with that of JP9-164100, as the structures are disclosed in figures 6-7 of JP9-164100 to be equivalents of each other, to allow for the most effective gripping of the handle tube.

Song et al. discloses a cyclone dust collector installed proximate the handle (fig. 2, #10).

With respect to claims 3-4, Wolf discloses a knurled part formed in an external surface of a handle (col. 6, lines 27-35). It would have been obvious to one of ordinary skill in the art to provide the knurled part of Wolf in Song et al. in view of JP9-164100 to prevent an operator's hand from accidentally slipping off of the handle during operation of the cleaner.

With respect to claim 6, Song et al. discloses the dust collector discloses a cyclone body and soil collection receptacle (fig. 3, #20,30).

With respect to claim 7, Song et al. discloses the cyclone body including a suction port, a discharge port and a grill joined to the discharge port (fig. 5, area near #11, area near #12a,50).

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11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP2002-209803 in view of Wolf(3,557,399).

JP2002-209803 discloses a similar handle tube however fails to disclose a brush.

JP2002-209803 discloses a handle tube interposed between a nozzle and a cleaner body (fig. 2, #50,41,1). Wolf discloses a brush disposed at one end of a handle tube (fig. 2, #40). It would have been obvious to one of ordinary skill in the art to provide the brush of Wolf in JP2002-209803 to allow for agitation of a surface to be cleaned to allow for the most effective removal of dirt.

JP2002-209803 discloses the handle tube forms an airflow passage and is double bent between a distal end connected with the brush and a proximal end connected with the cleaner body (fig. 2, areas near #57,42).

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edin(6,209,925) in view of Wolf(3,557,399).

Edin discloses a similar handle tube however fails to disclose a brush.

Edin discloses a handle tube interposed between a nozzle and a cleaner body (fig. 1, #14,10,13). Wolf discloses a brush disposed at one end of a handle tube (fig. 2, #40). It would have been obvious to one of ordinary skill in the art to provide the brush of Wolf in Edin to allow for agitation of a surface to be cleaned to allow for the most effective removal of dirt.

Edin discloses the handle tube forms an airflow passage and is double bent between a distal end connected with the brush and a proximal end connected with the cleaner body (fig. 2a, areas near #16a,15b,15a).

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13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO02/051296 as applied to claim 8 above, and further in view of Song et al.(6,195,835).

WO02/051296 discloses a similar handle tube however fails to disclose a cyclone dust collector installed proximate the handle.

Song et al. discloses a cyclone dust collector mounted proximate a handle of a tube portion to reduce the quantity of dirt collected in the cleaner body and to prevent any deterioration of the suction force and overloading of the motor (fig. 2, #10, col. 2, lines 1-15). It would have been obvious to one of ordinary skill in the art to provide the cyclone dust collector of Song et al. on the handle tube of WO02/051296 to reduce the quantity of dirt collected in the cleaner body and to prevent any deterioration of the suction force and overloading of the motor.

14. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP9-164100 as applied to claim 8 above, and further in view of Song et al.(6,195,835).

JP9-164100 discloses a similar handle tube however fails to disclose a cyclone dust collector installed proximate the handle.

Song et al. discloses a cyclone dust collector mounted proximate a handle of a tube portion to reduce the quantity of dirt collected in the cleaner body and to prevent any deterioration of the suction force and overloading of the motor (fig. 2, #10, col. 2, lines 1-15). It would have been obvious to one of ordinary skill in the art to provide the cyclone dust collector of Song et al. on the handle tube of JP9-164100 to reduce the quantity of



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dirt collected in the cleaner body and to prevent any deterioration of the suction force and overloading of the motor.

### ***Double Patenting***

15. Applicant is advised that should claim 3 be found allowable, claim 4 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Response to Arguments***

16. Applicant's arguments with respect to claims 1, 3-4 and 6-9 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DE3717993 and Vance disclose handle tubes for vacuum cleaners that are double bent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Friday (5:30am-2:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Theresa T. Snider  
Primary Examiner  
Art Unit 1744

4/11/07